can be rolled into a 2-mm tube that unrolls and rehardens inside the eye at body temperature.

These new intraocular lens developments have caused an increased interest in and the use of phacoemulsification for cataract removal. In addition, early reports would seem to indicate that the hydrogel and silicone lenses have similar complication rates to the standard PMMA intraocular lenses. These small-incision implants may have substantial future uses in the surgical treatment of cataracts, but long-term evaluation of their safety is needed. Both types of lenses are still in an investigational stage and, at present, the experience with silicone lenses is limited, with less than five years of follow-up, while knowledge of hydrogel lenses in patients is limited to just over ten years. Hence, more time is needed before these lenses can be shown to have the proven safety and efficacy of the existing standard PMMA lenses.

AUGUST L. READER III, MD
Los Angeles

REFERENCES

Allarakhia L, Knoll RL, Lindstrom RL: Soft intraocular lenses. J Cataract Refract Surg 1987; 13:607-620

Banker D, Sodero EC, Mazzocco TR, et al: Lenses of the future—Gel substitute, compressible silicone, expansile hydrogel, chap 23, *In* Abrahamson IA (Ed): Cataract Surgery. New York, McGraw-Hill, 1986, pp 226-280

Pneumatic Retinopexy

THE USE OF TRANSCONJUNCTIVAL CRYOPEXY and intravitreal gas injection (pneumatic retinopexy) in the office setting for simple rhegmatogenous retinal detachments with retinal tears in the superior retina (8 o'clock to 4 o'clock positions) has recently been proposed. This technique replaces standard scleral buckling, which requires an operating room. The localization of all the retinal holes is important for the placement of transconjunctival cryopexy and for postoperative head positioning. The expandable gas used for internal tamponade of the retinal holes is either sulfur hexafluoride (SF_6) or perfluoropropane (C_3F_8). Because of the differences in lipid solubility of these gases, the duration of the intraocular bubble will vary from 5 to 7 days for SF_6 to 14 to 21 days for C_3F_8. Patients are required to maintain head positioning for several days after the operation or longer at home to allow maximum apposition of the gas bubble to seal the tear(s). For multiple tears, several positions may be required during each day. An arrow may be drawn with a felt-tip marker on the eye patch, or even on the forehead, to assist the patient and family in proper head positioning.

The risk of the procedure includes extension of the retinal detachment into the macula, development of new retinal breaks at a site remote from the original break(s), and intraocular infection—endophthalmitis. In a review of 100 consecutive cases, 84% were attached at six months, with the pneumoretinopexy failures surgically repaired by conventional scleral buckling, improving the overall success rate to 98%. Failure was caused by excessive retinal scarring and new or missed retinal breaks. Pneumatic retinopexy offers advantages in the management of uncomplicated superior rhegmatogenous retinal detachments.

This outpatient procedure reduces the morbidity of hospital stays, general anesthesia, and periocular trauma, resulting in an acceptable reattachment rate with no loss of ultimate anatomic success if a subsequent conventional scleral buckling is required. A careful preoperative examination to determine the presence of all retinal breaks, especially those in the inferior retina, and patient compliance with head positioning after the operation are the major factors in achieving anatomic success.

EDGAR L. THOMAS, MD
Los Angeles

REFERENCES

Eckardt C: *Staphylococcus epidermis* endophthalmitis after pneumatic retinopexy. Am J Ophthalmol 1987; 103:720-721

Hilton GF, Grizzard WS: Pneumatic retinopexy—A two-step outpatient operation without conjunctival incision. Ophthalmology 1986; 93:626-641

Hilton GF, Kelly NE, Salzano TC, et al: Pneumatic retinopexy—A collaborative report of the first 100 cases. Ophthalmology 1987; 94:307-314

Hilton GF, Kelly NE, Tornambe PE: Extension of retinal detachments as a complication of pneumatic retinopexy (Letter). Arch Ophthalmol 1987; 105: 168-169

Yeo JH, Vidaurri-Leal J, Glaser BM: Extension of retinal detachments as a complication of pneumatic retinopexy. Arch Ophthalmol 1986; 104:1161-1163

ADVISORY PANEL TO THE SECTION ON OPHTHALMOLOGY

ROBERT L. STAMPER, MD
Advisory Panel Chair
CMA Scientific Board Representative
San Francisco

STERLING J. HAIDT, MD
CMA Section Chair
Mountain View

EZRA MAGUEN, MD
Section Editor
CMA Section Secretary
Los Angeles

EVERETT AI, MD
CMA Section Assistant Secretary
San Francisco

JAMES I. MCNEILL, MD
Loma Linda University

MICHAEL F. MARMOR, MD
Stanford University

JOHN KELTNER, MD
University of California, Davis

IRVING LEOPOLD, MD
University of California, Irvine

BRADLEY R. STRAATSMA, MD
University of California, Los Angeles

STUART BROWN, MD
University of California, San Diego

STEVEN KRAMER, MD
University of California, San Francisco

STEPHEN J. RYAN, Jr, MD
University of Southern California

DAVID D. SACHS, MD
San Francisco

BERNICE Z. BROWN, MD
Los Angeles

ROBERT E. CHRISTENSEN, MD
Los Angeles

RAY OYAKAWA, MD
Los Angeles